LIBRARY OF THE
UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

630.7
Iℓ6b
no.741-750

AGRIC.

NOTICE: **Return or renew all Library Materials! The *Minimum* Fee for each Lost Book is $50.00.**

The person charging this material is responsible for its return to the library from which it was withdrawn on or before the **Latest Date** stamped below.

Theft, mutilation, and underlining of books are reasons for disciplinary action and may result in dismissal from the University.
To renew call Telephone Center, 333-8400

UNIVERSITY OF ILLINOIS LIBRARY AT URBANA-CHAMPAIGN

~~MAY 10 1989~~

~~JUN 14 1996~~

FEB 04 1998

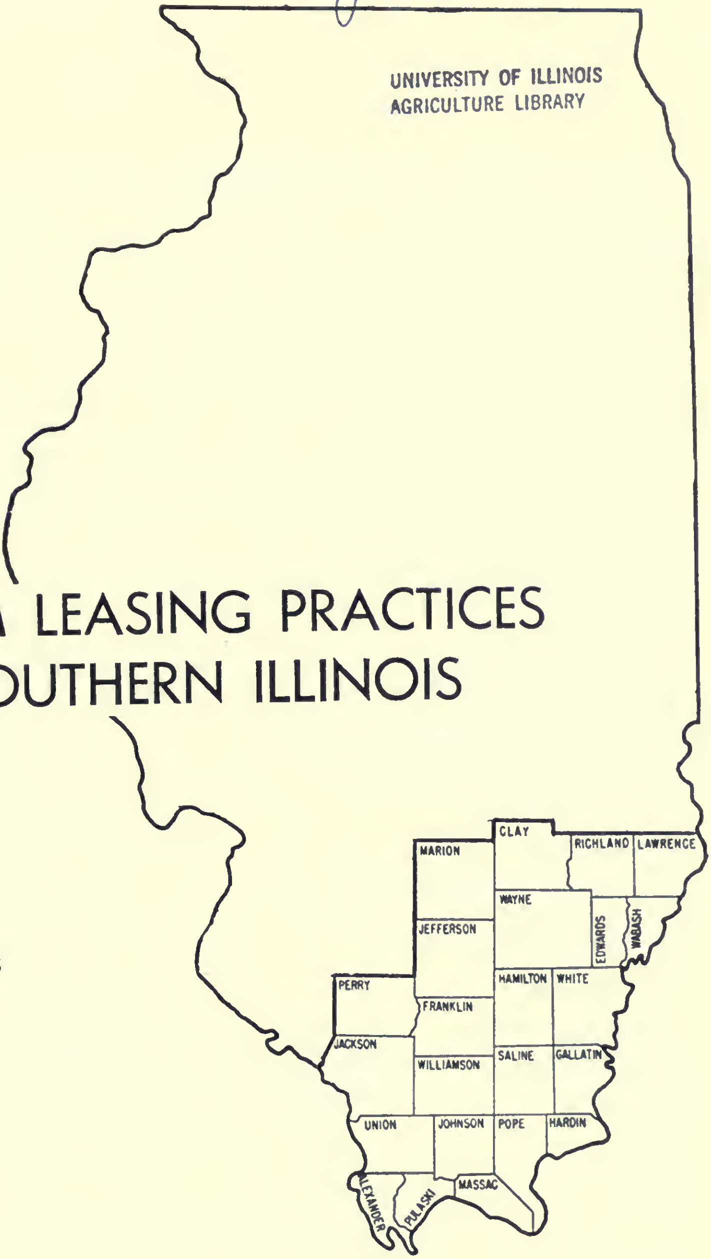
JUN 14 [illegible]

L161—O-1096

0.7
6b

ag Lib

UNIVERSITY OF ILLINOIS
AGRICULTURE LIBRARY



FARM LEASING PRACTICES IN SOUTHERN ILLINOIS

F. J. Reiss

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN
COLLEGE OF AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
BULLETIN 745

THE LIBRARY OF THE
MAR 5 1974
UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

CONTENTS

Reasons for the Study 6
Procedure 8
Results 10
Leaseholds and Farms 14
Landlord Characteristics 15
Landlord Management and Leasing Mechanics 19
Estimated Cash Rents 26
Custom Farming 28
Cost-Sharing Practices 29
Grain Storage and Drying Costs 41
Livestock-Share Leases 45
Cash Leases 47
Mixed Rent Shares 49
Summary and Conclusions 49

This bulletin was prepared by Franklin J. Reiss, Professor of Agricultural Economics. Acknowledgement is hereby made for contributions by William McD. Herr, Professor in Agricultural Industries, Southern Illinois University at Carbondale, to the formulation of the study and initial analyses of the data.

Urbana, Illinois December, 1973

Publications in the Bulletin series report the results of investigations made or sponsored by the Experiment Station.

The Illinois Agricultural Experiment Station provides equal opportunities in programs and employment.

FARM LEASING PRACTICES IN SOUTHERN ILLINOIS

Ownership has been the conventional means of controlling land for agricultural use. Because of the institution of tenancy, however, it is not necessary for the farm operator to own the land resource in order to gain operating control of it. For many young farmers and others who have little accumulated capital to use in acquiring or holding ownership control of land, the alternative is to rent. Renting land differs from owning it in that the tenant acquires only temporary control of only a part of the bundle of rights in land, particularly the rights of possession and use. The tenant acquires control of these rights for the period of time specified in the lease agreement. In Illinois, this is typically one year with an automatic extension of the lease from year to year.

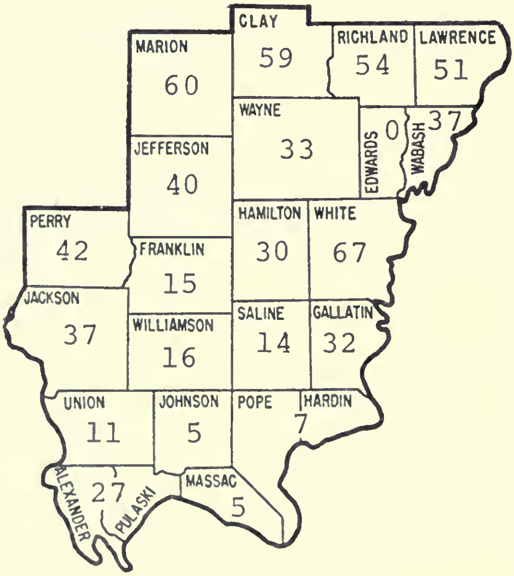
It is useful to think of this exchange of rights in farmland as taking place within a market — a farm rental market. The farm rental market is very similar to the farmland purchase market in that the demanders are primarily farm operators and owners of other farmland, while the suppliers are largely retired farmers or their immediate heirs. The purchase price paid for farmland, in either the rental or purchase market, is largely determined by the income which that land will produce when used for agricultural purposes.

The farmland rental market is not a highly developed market; it is not clearly defined or structured; it is not located in any central place; the supply of land in the market is seldom accurately known; and the competition for land seldom takes the form of a face-to-face confrontation of one bidder versus another. Participants in the market are not required to declare themselves; they need not meet any licensing or other requirements to participate in the market; and perhaps seldom do the parties, that is, landowner and tenant, even think of themselves as participating in a market, perhaps because their activity is so extremely limited geographically.

It is useful to employ the context of a market to study farm lease practices because within this context one can inquire as to the prices that are being paid. These prices are a measure of the value of rights of production and use for a given piece of farm real estate. On a net rent basis, they are the value of the crop produced above all nonland costs of production, including an adequate return to the operator for his labor and management. In the long run, land is paid the residual income or the value of the product over and above the necessary costs of management, labor, power, machinery, equipment, fertilizer, and other inputs employed in modern agricultural production. Over time this residual income approximates one-third, two-fifths, or one-half of the total crop production, depending upon the productivity of the land in question. These shares of the crop have been gradually accepted as customary gross rent shares of the crop to be paid for the use of farmland. In practice, landlords also share in certain nonland costs, and other customs related to the sharing of these nonland costs have been developed and become institutionalized.

This publication describes the prevailing practices, customs, and institutional arrangements in a particular part of southern Illinois and discusses how these arrangements serve to establish the going rental prices of farmland. The area described consists of 23 counties in southern and southeastern Illinois (Fig.1). The soils in this area are much older, and more mature, than the recently glaciated soils of central and northern Illinois. It is also an area remote from any large urban populations. Both rural and urban communities within this 23-county area have experienced some depopulation over the past 20 years.

It is an area characterized by small farms, many of them part-time farms. Development of mineral resources, largely coal and oil, has provided off-farm employment opportunities. The area is much older in terms of settlement and economic development than are other parts of



The counties in the sample area in southern Illinois with number of usable questionnaires returned to extension advisers in each county. (Fig. 1)

Illinois. Land ownership is characterized by small units (Table 1). The tracts reported in this table constitute ownership units rather than operating units. The counties included in Table 1 were chosen arbitrarily to illustrate the characteristics of the ownership pattern of the whole area.

Table 1 should not be interpreted as representing the total farmland ownership of every individual owner. Rather, the table reflects the independent tracts that appear in the farmland market, either the rental market or the land ownership market. Each of these tracts represents a farmland supply unit in the operation of farmland markets.

If efficiency goals in farm operation require aggregating units of four or five hundred acres of land, or more, but two-thirds or more of the ownership units that constitute the supply of land in the farmland

Table 1. — Distribution of Ownership Tracts in Saline, Gallatin, and Union Counties by Acres of Cropland per Tract in 1969

Size range in acres of cropland	Saline		Gallatin		Union	
	Number	Percent	Number	Percent	Number	Percent
(All tenant-operated tracts)						
Under 20......	76	16	49	9	33	13
20-59.........	149	31	174	30	77	29
60-99.........	86	18	118	21	46	17
100-139.......	80	16	51	9	38	14
140-179.......	20	4	67	12	24	9
180-219.......	22	4	34	6	12	5
220-259.......	14	3	20	3	9	3
260-379.......	23	5	20	3	17	6
380-499.......	12	2	21	4	4	2
500 or more...	7	1	17	3	6	2
Total.......	489	100	571	100	266	100
(All owner-operated tracts)						
Under 20......	1,122	53	109	19	309	25
20-59.........	505	24	143	24	433	35
60-99.........	219	10	149	26	238	19
100-139.......	115	5	49	8	105	9
140-179.......	52	2	41	7	57	5
180-219.......	31	1	18	3	31	3
220-259.......	17	1	13	2	12	1
260-379.......	33	2	24	4	20	2
380-499.......	13	1	10	2	4	0
500 or more...	10	1	30	5	12	1
Total.......	2,117	100	586	100	1,221	100

Source: County ASCS addressograph lists.

markets are less than 100 acres in size, clearly the farm operator is faced with the task of dealing with more than one owner in order to achieve the desired size-of-operating-unit goal. This gives us an important characteristic of the farmland rental market in southern Illinois. Namely, it is a market of relatively small tracts, many or perhaps most of which have no buildings or improvements on them and are too small to encourage a significant management input by the landowner or his agent.

REASONS FOR THE STUDY

The area covered by this study is characterized by owner operation of farmland. Land is lower in price and therefore more easily controlled through ownership than in other parts of the state.

According to the 1969 Census of Agriculture, about 57 percent of the farms in this part of the state were owner-operated. That is, the operator owned all of the land that he farmed. This statistic is derived from Table 2 by subtracting the percent of part-owners and full tenants from 100. Thus, 43 percent rented either all or part of the land that they farmed. The remaining 57 percent of the operators owned all of the land that they farmed and were not involved in renting-in any land in 1969.

It has been estimated that one could expect a tenancy rate as high as 30 percent of all land just to accommodate the intergeneration transfer of the control of land. Actually, the tenancy rate within the study area may be as high as 40 to 45 percent of the land under lease if the rented portion of the part-owner farms is included.[1] This is a significant portion of the total real estate input in the farm economy of the area and amply justifies some research and reporting of the conditions, requirements, and prices under which the land is controlled.

In addition to the informational needs of farmers and landowners in the area, two other reasons for the present inquiry into farm lease practices are the diversity of rental-share arrangements (that is, a mixture of ⅓, ⅖, and ½ rent-shares in the area) and the adoption of newer technology that results in a rising level of productivity on these southern Illinois soils, but with rising cash costs for nonland inputs. The questions raised by these changes are rather complex. On the one hand, competition for land to enlarge farm operating units tends to push farmers to capitalize surplus returns from improved practices into land prices. On the other hand, the inputs that generate these surplus returns originate as nonland costs.

The practical issues of this problem can be phrased in the form of

---

[1] Data from the 1959 Census of Agriculture indicate that 42 percent of land in this area was rented that year.

Table 2. — Number of Farms and Average Size of Farm by Tenure Within Counties in the Study Area

County	Number of farms			Aver. size of farm (acres)		
	All farms	Full tenants	Part owners	Full owners	Full tenants	Part owners
Alexander.....	259	44	82	170	296	525
Clay..........	1,104	103	500	125	182	306
Edwards.......	622	71	231	122	183	354
Franklin......	888	33	290	117	150	319
Gallatin......	454	91	197	185	348	532
Hamilton......	960	84	352	150	249	340
Hardin........	263	7	37	165	124	330
Jackson.......	1,053	112	285	154	229	366
Jefferson.....	1,428	88	459	122	165	331
Johnson.......	615	23	72	177	181	346
Lawrence......	712	67	281	116	288	385
Marion........	1,455	133	587	116	187	307
Massac........	669	36	116	127	193	317
Perry.........	931	97	336	128	199	399
Pope..........	391	18	84	191	482	329
Pulaski.......	353	21	122	157	167	343
Richland......	949	62	419	125	181	340
Saline........	697	66	232	149	264	337
Union.........	867	68	151	143	286	287
Wabash........	465	70	178	131	216	410
Wayne.........	1,620	116	628	134	211	365
White.........	933	156	379	153	302	462
Williamson....	724	30	174	113	157	209
Total farms.	18,412	1,596	6,182	...	...	...
Aver. size..	...	...	...	142	228	358
Percent.....	100	9	34	...	...	...

Source: 1969 Census of Agriculture.

two questions: (1) What is an appropriate return for a landlord's inputs, assuming a crop-share lease? And the other, a corollary to it, (2) To what extent should landowners share in nonland costs, or should they receive a larger gross rent-share? Indeed, some shifting in rent-shares has occurred. Some landowners formerly receiving a third of the crop have raised the rental price to two-fifths of the crop. Tenants who are confronted with this alteration in the quoted rental price of land are raising the question of what is the appropriate sharing of nonland costs when such a change of rent-shares occurs. A survey of farm leasing practices in the 23-county area was undertaken to provide answers to these and related questions. This publication is a report of the information that the survey revealed.

PROCEDURE

Because of the lack of identity between ownership units (which would be the object of leaseholds) and constituted farm operating units, it is difficult to obtain an adequate or representative sample of leasehold units from a sampling of farm operating units. It was decided that the unit of observation in this study would be a single leasehold. The problem then became one of obtaining a representative sample of all of the farm leaseholds in the area. Inquiry among county Agricultural Stabilization and Conservation Service (ASCS) offices revealed that they maintained addressograph lists that separated rented units or tracts from owner-operated tracts.

At this point, the state ASCS office was contacted and, with the help and cooperation of Mr. Morris Claus of that office, a procedure was developed whereby each of the county ASCS offices in the 23-county study area provided a list of their rented tracts, including the name and address of the tenant-operator. These tenant-operator lists were forwarded to the appropriate county agricultural extension adviser's office for his use in drawing a sample of tenant-operators in his county.

Cooperation in planning and questionnaire development was obtained from William McDermott Herr and other staff members and graduate students at Southern Illinois University at Carbondale. A tentative questionnaire was then submitted to each of the county agricultural extension advisers in the 23-county area. They made valuable comments and suggestions for changes in the content and format of the questionnaire, particularly on several questions relating to the way certain nonland costs, notably herbicides, were shared by tenant and landlord.

The questionnaire in final form was distributed to the county extension advisers' offices to be mailed out to the sample of tenant-operators drawn from the county ASCS operator list.

The final sampling rate was about 16 percent of the total number of tenant-operators. The procedure used was to go down the list to the sixth name. This name and address was to become part of the sample. The count of six was then resumed to get the second name and so on through the entire list with the exception that no name selected for the sample should be for a tract of less than 20 acres. If the count of six resulted in a name with a tract of less than 20 acres, the instructions were to proceed down the list one name at a time until a tract of 20 acres or larger was reached. This name was then included in the sample and the successive count was resumed at this point for the next sixth name on the list. Also, no tenant was to be sent more than one questionnaire. If a tenant's name repeated, the next eligible name in line was selected.

Approximately 2,300 questionnaires were mailed out in the 23-county area. There were 642 usable questionnaires returned to the county extension advisers' offices. This is about 28 percent of the number originally sent out and about 8 percent of the total number of farmers in the area who rented part or all of their land.

Table 3 presents a summary of the geographic distribution of the 642 usable questionnaires, and also shows the distribution of cash and share leases in each county and a further distribution among the share leases according to the rent-share that was paid to the landowner. This distribution is reported as a percentage of the number of share leases in the county, thus making it easy to identify those counties in which given rent-shares tend to predominate. For example, Gallatin, Lawrence, Saline, Wabash, and White Counties show a predominance of share leases calling for a ⅖ rent-share to the landowner. Judging from previous census data, the high proportion of ½ rent-share leases shown for

Table 3. — Geographical Distribution of 642 Usable Questionnaires Returned to County Extension Advisers

County	Number of		Percent of share leases with a rent-share of[a]		
	Cash leases	Share leases	1/3	2/5	1/2
Clay..............	3	56	75	16	9
Edwards...........	0	0	0	0	0
Franklin..........	1	14	93	0	7
Gallatin..........	2	30	20	60	20
Hamilton..........	2	28	79	14	7
Jackson...........	5	32	88	9	3
Jefferson.........	2	38	76	8	16
Johnson...........	5	0	0	0	0
Lawrence..........	1	50	32	64	4
Marion............	3	57	95	0	5
Massac............	2	3	100	0	0
Perry.............	2	40	92	0	8
Pope-Hardin........	1	6	33	0	67
Pulaski-Alexander..	5	22	68	0	32
Richland..........	1	53	79	11	10
Saline............	2	12	50	50	0
Union.............	1	10	50	0	50
Wabash............	2	35	37	57	6
Wayne.............	1	32	72	9	19
White.............	2	65	28	58	14
Williamson........	4	12	100	0	0
Area totals......	47	595	65	24	11

[a] Mixed-share leases were counted with the higher share.

Pope, Hardin, and Union Counties is a result of a chance occurrence produced by a small number of responses in those counties. A number of these ½ rent-share leases in these counties would be accounted for by livestock-share arrangements. The remaining 15 counties are predominantly on a ⅓ rent-share basis.

RESULTS

The number of completed questionnaires was great enough to permit a fairly detailed classification of the leaseholds in question. This classification, which is essentially the structure of the remaining part of this report, is outlined in Table 4. Several basic hypotheses that guided the study are visible from the structure of this table; namely, that there are significant differences among the lease types in use in this area, and particularly, that there are significant differences in the leasing arrangements on tracts with buildings or structural improvements as opposed to those without such improvements.

The total of 636 questionnaires reported in Table 4 is less than the 642 usable questionnaires noted earlier. There were six questionnaires that failed to report the size of the rented tract. In this table, and in others to follow, the averages reported are based on the number of farms responding on a given information item, unless otherwise noted.

There is an apparent difference in the size of the leasehold tracts between those tracts with buildings and those without. Tracts without buildings were much smaller than those with buildings. Tracts under cash leases tended to average smaller than those with share leases. Tracts on ⅓ rent-shares were smaller than those with ⅖ or ½ rent-shares. Considerable nontillable land characterized most of the leasehold tracts. This part of southern Illinois has sizable acreages in timber and pasture lands.

A paramount question concerns the validity of the different rent-shares among crop-share leases. In other words, why do some tracts apparently warrant a ⅖ or ½ rent-share while others command only ⅓? The probable reason is that the tracts under a ⅖ rent-share were more productive than those that command only ⅓. The estimated average corn yield in bushels per acre was used as a test of this hypothesis. The results are reported in Table 5. The tenants operating these tracts estimated an average of 100 bushels of corn for the 118 tracts on a ⅖ rent-share as compared with 85.5 bushels of corn as the average for 321 tracts on a ⅓ rent-share. A statistical test of significance indicated that this observed difference was significant at the 2.5-percent probability level. In general, then, among crop-share leases the share of the crop

Table 4. — Size of Leasehold Tracts by Type of Lease, Rent-Shares, and Improvements

Lease type and rent-shares	Number of tracts reporting	Average size		Percent of tracts		
		Total acres	Tillable acres	Under 60 acres	60-179 acres	180 acres or more
Cash leases						
With buildings........	16	180	129	6	50	44
Without buildings.....	31	87	60	55	35	10
Crop-share leases						
1/3 rent-share						
With buildings......	106	191	147	9	51	40
Without buildings...	277	94	70	40	50	10
2/5 rent-share						
With buildings......	46	263	221	4	37	59
Without buildings...	88	145	121	37	43	20
1/2 rent-share						
With buildings......	18	216	170	0	50	50
Without buildings...	18	104	80	17	72	11
Mixed rent-shares						
All tracts..........	19	339	257	5	47	46
Livestock-share leases						
All tracts...........	17	283	179	6	23	71
All leases.............	636	147	113	28	47	25

Table 5. — Average Productivity of ⅓ and ⅖ Crop-Share Leases Measured in Terms of Average Corn Yields

	Number of leases	Estimated average corn yield, bushels per acre[a]
1/3 rent shares..........	321	85.5
2/5 rent-shares..........	118	100.1
Both types of rent-shares.	439	89.4

[a] Difference in yields is significant at the 2.5-percent probability level.

Source: Data taken from Table 1 *in* Analysis of Crop-Share Leases in Southern Illinois. D. L. Angel. Unpublished M.S. thesis. Dept. of Agr. Industries, Southern Illinois University at Carbondale.

given to the landlord as rent is related to the productive capacity of the tract in question.

There is a strong tendency for all rental arrangements in a given community or even a given area to follow established customs, and this would include the rent-share given to the landlord. The question must be raised as to whether some tracts that are above average productivity might still rent for a ⅓ share even though all other indications might suggest a higher rent. Or it may be that related landlords and tenants arrive at leasing arrangements, including rent-shares to the landlord, that tend to be more favorable to the tenant than arrangements between unrelated parties.

The evidence reported in Table 6 was assembled to test this hypothesis. Confining the analysis to crop-share leases with ⅓ and ⅖ rent-shares and using only those questionnaires with complete information, the 309 leases on a ⅓ rent-share were divided into three groups according to the estimated average corn yields in bushels per acre. Of the 309 leases, 151 had estimated average corn yields of less than 90 bushels, 123 ranged from 90 to 109, and 35 had estimated corn yields of 110 or more bushels per acre. Making a similar array of the 114 leases on a ⅖ rent-share resulted in slightly over half of them falling in the 90- to 109-bushel corn yield range with 19 below 90 bushels and 36 with 110 bushels or more. The question then is: Is kinship a factor in the fact that 158 crop-share leases with corn yields of 90 bushels or more are on ⅓ rent-shares while 94 other tracts with a similar estimated range in corn yields are on a ⅖ rent-share?

Further evidence of the relationship between the rent-share and quality of the tract in question is found in Table 7. In this table, the 426 leaseholds under a crop-share lease were classified according to the estimated current value of land and buildings placed on the property by the tenant operator. Of these leaseholds, 108, or about one-fourth, were on land valued under $250 per acre. Of these, 81 percent were on a ⅓

Table 6. — Percent of Tenants Related to Their Landlords by Average Level of Soil Productivity as Measured by Estimated Average Corn Yields[a]

	Estimated corn yields (soil productivity levels) in bushels per acre			All soils
	Under 90	90-109	110 or more	
1/3 rent-shares				
Number of leases.......	151	123	35	309
Percent related........	32	46	49	39
2/5 rent-shares				
Number of leases.......	19	58	36	113
Percent related........	32	19	31	25
Both types of rent-shares				
Number of leases.......	170	181	71	422
Percent related........	32	36	39	35

[a] The difference in frequency of kinship between the ⅓ and ⅖ rent-shares was significant at the 2.5 level of probability.

Source: Data taken from Table 15 *in* Analysis of Crop-Share Leases in Southern Illinois. D. L. Angel. Unpublished M.S. thesis. Dept. of Agr. Industries, Southern Illinois University at Carbondale.

Table 7. — Relation Between Rent-Shares and Estimated Land Values for Crop-Share Leases

Estimated value per acre	Number of tracts[a]	Rent-shares		
		1/3	2/5	1/2
		(Percent of tracts)		
Under $250..........	108	81	13	6
$250-399............	195	68	24	8
$400-499............	71	48	35	17
$500 or more........	52	37	52	11
All values..........	426	64	27	9

[a] Not all questionnaires reported an average value of land.

rent-share, 13 percent on a ⅖ rent-share, and 6 percent on a ½ rent-share. As the value of land per acre in this table increases, the proportion of leaseholds on a ⅖ or ½ share increases while the proportion on a ⅓ share decreases. Again, the relationship is not perfect. The equitability of the six leases under a ½ rent-share on land valued under $250 per acre might be questioned. How can the tenant afford to pay so high a rent? On the other hand, one may question whether the 37 percent of the tracts valued at $500 per acre or over that command only a ⅓ rent-share are returning as much rent to the landowner as he might have earned. Again, such a judgment must rest upon a knowledge of the non-land inputs contributed by the landlord in question. A ⅓ rent-share on high-value land that is essentially free of all operating cost to the landlord could be just as fair and equitable as a ½ rent-share on low-valued land under leasing arrangements that call for the landlord to participate one-half in all fertility, all seed, and all harvesting costs. In general, however, it is appropriate to use a rent-share compatible with the productivity level of the tract in question and thus avoid extremes in nonland cost-sharing by the landowner.

Table 6 indicates that there was a higher proportion of kinship between tenant and landlord among all leases on a ⅓ rent-share than on a ⅖ rent-share. Only one-fourth of the tenants on a ⅖ rent-share were related to their landlords as contrasted to 39 percent of the ⅓ rent-share tenants. Furthermore, the proportion of the related tenants among the ⅓ rent-share leases increased from 32 percent for those with average corn yields under 90 bushels per acre to nearly one-half for the 35 with estimated corn yields of 110 bushels or more. The evidence therefore strongly supports the hypothesis that tenants with related landlords tend to rent on more favorable leases. This is not to say that the 35 leases on a ⅓ rent-share on land capable of producing 110 bushels of corn per acre should command a ⅖ rent-share or that the 19 leases on a ⅖ rent-share on soils producing an estimated yield of corn under 90 bushels per acre should be on a ⅓ rent-share. If all other things were equal, there would be some basis for such assertions. But the equitability or fairness of leases must be judged on the basis of all evidence and not a single one such as the share of the crop given as rent.[1] It is entirely possible, although perhaps not wholly probable, that the 19 leases on ⅖ rent-share were just as fair and equitable as the 35 leases on ⅓ rent-share reported in Table 6. Landlord cost-sharing patterns reported in Tables 14 to 20 indicate a higher degree of landlord participation in nonreal estate costs among leaseholds commanding a ⅖ or ½ rent-share than among those on a ⅓ rent-share.

LEASEHOLDS AND FARMS

As noted earlier, most full-tenant and part-owner farms consist of combinations of more than one leasehold tract. In Tables 8 and 9 the full tenants and part owners among the respondents were classified according to the size of farm they operate. Out of 617 tenants that responded with complete information, 105 operated as full-tenant units with all land under lease. Even so, the average for this group was 2.7

---

[1] Economic theory suggests that the only objective basis for judging the equitableness of a lease is that returns to factor owners should be in proportion to the marginal value products of their inputs.

Table 8. — Average Size of Farm and Leaseholds Rented by Full Tenants, and Number of Leaseholds per Tenant, by Size of Farm

Range in size of farm, acres	Number of farms	Average size of farm, acres	Number of different leaseholds	Acres per leasehold	Leaseholds per tenant
Under 180....	29	104	55	55	1.9
180-259......	14	216	37	82	2.6
260-499......	29	386	87	129	3.0
500-779......	18	595	62	173	3.4
780 or more..	15	1,054	47	337	3.1
All sizes....	105	417	288	152	2.7

leaseholds per tenant or per farm. For farms falling in the size group larger than 260 acres, the average was three or more leaseholds per farm. In the modal case then, the typical full-tenant operator was dealing with at least three different landlords. The part-owner farms in Table 9 had a similar situation except that they averaged slightly larger with a slightly higher average of 3.1 leaseholds per farm. The average size of leasehold tracts among full tenants was substantially larger than among the part-owner farms. The reasons for this difference are not immediately clear, but they are probably associated with the presence of improvements on the tract.

Table 4 has shown that leasehold tracts with buildings were generally about twice as large as tracts without buildings. Since the full tenants in Table 8 are, by definition, required to rent some tracts with buildings and these tend to be larger tracts, this may be the reason for the size difference. Among the part owners, there is a tendency for the buildings servicing the operating unit to be on the owned portion of the farm, leaving the rented land in the form of unimproved tracts to enlarge the operation. In each of the five size categories in Tables 8 and 9, the average size of the leaseholds was smaller among the part-owner farms than for the corresponding size group among the full-tenant farms. Omitting the largest and smallest farms, most part-owner operators were dealing with two, three, or four different landlords. Whether or not this gives an advantage in bargaining experience to the tenants remains an open question.

LANDLORD CHARACTERISTICS

Some of the characteristics of the landowners are shown in Tables 10 and 11. Table 10 shows that approximately one-third of the landowners were women. Nearly 40 percent were men and about 17 percent

Table 9. — Number of Leaseholds and Average Size of Leasehold by Size of Farm for Part Owners Completing the Questionnaire

Range in size of farm, acres	Number of farms	Average size of farm, acres	Average acres owned	Average acres rented	Percent of land rented	Number of different leaseholds	Average size of leasehold, acres	Leaseholds per farm
Under 180.....	74	129	61	68	53	125	40	1.7
180-259.......	86	220	97	123	56	193	55	2.2
260-499.......	160	373	152	221	59	460	77	2.9
500-779.......	118	611	236	375	61	445	99	3.8
780 or more...	74	1,368	587	781	57	368	157	5.0
All sizes.....	512	510	211	299	59	1,591	96	3.1

Table 10. — Types of Landlords by Type of Lease, Rent Paid, and Buildings

Type of lease and rent paid	Type of landowner					
	All types	Man	Woman	Two or more co-owners	Corporation and government bodies	Estates
	(Number reporting)	(Percent of number reporting)				
Cash leases						
With buildings	16	31	38	19	12	0
Without buildings	31	23	42	16	16	3
Crop-share leases						
1/3 rent-share						
With buildings	107	40	33	17	3	7
Without buildings	276	40	32	18	1	9
2/5 rent-share						
With buildings	46	37	41	11	2	9
Without buildings	87	38	33	20	1	8
1/2 rent-share						
With buildings	18	67	5	17	0	11
Without buildings	19	42	32	16	0	10
Mixed rent-shares						
All tracts	19	26	32	16	0	26
Livestock-share leases						
All tracts	17	53	18	23	0	6
All leases	636	39	33	17	2	9

reported two or more coowners, many of whom were husband and wife. It is, therefore, probably a safe assumption that the proportion of nonoperating landowners who were women ranged somewhere between one-third and two-fifths. This is a statistic that agrees surprisingly well with similar studies in other parts of the state.

The smallest proportion of women owners was reported among tracts with buildings on ½ rent-shares and among properties on livestock-share leases. This is as might be expected since the landowner's management of these properties is more complicated with these arrangements, and, therefore, women owners who lack either experience or interest in such management may find them less attracive. As might also be expected, the highest proportion of women landowners occurred among properties on cash leases. Approximately 40 percent of these landowners were women.

Table 11. — Age Distribution of Landlords and Kinship With Tenant by Type of Lease and Rent Paid

Type of lease and rent paid	Age of landlord				Kinship with tenant		
	Number reporting	Under 45	45-64	65 and over	Number reporting	Yes	No
		(Percent reporting)				(Percent reporting)	
Cash leases							
With buildings..........	13	0	31	69	16	56	44
Without buildings.......	22	9	32	59	25	36	64
Crop-share leases							
1/3 rent-share							
With buildings........	89	6	37	57	103	62	38
Without buildings.....	229	8	41	51	237	32	68
2/5 rent-share							
With buildings........	39	10	36	54	41	41	59
Without buildings.....	73	4	42	54	75	20	80
1/2 rent-share							
With buildings........	15	7	33	60	18	44	56
Without buildings.....	17	6	47	47	16	12	88
Mixed rent-shares							
All tracts...........	14	14	22	64	15	27	73
Livestock-share leases							
All tracts.............	15	7	33	60	16	56	44
All leases...............	528	7	39	54	562	38	62

Only 2 percent of these nonoperating landowners were classified as either private or public corporations. This statistic also is in agreement with data from other sources. Nine percent of the owners were classified as estates. There may be some ambiguity in this figure in that it is not known how many of these are estates in process of probate or how many are being operated more or less indefinitely as a form of coownership.

The age distribution of landlords is reported in Table 11. Of the 528 leaseholds for which this information was reported, only 7 percent had landlords under 45 years of age, while 54 percent reported landowners 65 or more years old. These observations agree with the life-cycle tenure history in the ownership and operation of Illinois farmland. Most farm people prefer to retire from active farming and to leave their accumulated life savings invested in farmland. This accounts for the large percentage of nonoperating landowners over 65.

Most of the female landowners, and many of those under 65 years of age, probably achieved their ownership of farmland through the inheritance process and have chosen to leave the inheritance invested as farmland.

Kinship between the tenant and landowner has already been discussed. A further elaboration of this information is recorded in Table 11. Overall, approximately 50 percent of the tenants had some kinship to their landlords, but it is interesting to note that the percentage is very strongly associated with the presence or absence of buildings on the tracts in question. Among tracts with buildings, the proportion of tenants claiming kinship with their landowners was nearly twice as great as among tracts without buildings. Approximately 55 percent of the tracts with buildings had tenants related to the landowner compared with only 25 percent on tracts without buildings. Kinship must be considered a major variable in the farm rental market in southern Illinois.

LANDLORD MANAGEMENT AND LEASING MECHANICS

This section deals with some of the management arrangements that characterize the share lease and the relationship between the tenant and his landlord. In that part of the questionnaire that dealt specifically with the particular leasehold tract under study, the tenant was asked to indicate the degree to which the landlord participated in the management of his property. He was asked to choose among four statements which read as follows:

1. Managed the property personally.

2. Hired an agent or professional manager.
3. Let you manage it for him.
4. Other (volunteer some other relationship).

Very few volunteered any other relationship except to indicate a mutual approach between the tenant and landlord to the management of the property. These are included under the first category of "managed the property personally" in Table 12. Clearly, the large majority of the landlords under the crop-share arrangement permitted the tenant, in effect, to manage the property for them. Whether or not the landlord actually intended for the tenant to perform an agent's role for him is another matter. The fact remains that these tenants did so interpret their relationship or status with the landowner.

Differences in the extent of both personal participation by the landlord in the management of his property and the frequency with which agents were employed by the landowner among the three types of rent-shares appear to be somewhat significant. Both the personal participation of the landowner and the frequency with which an agent was employed were higher among the tracts with higher rent-shares. This merely affirms an association observed in Table 12 and does not prove any causal relationships. One can, however, hypothesize that the more valuable and more productive tracts would warrant a greater management input by either the landowner personally or by an agent in his employ. Or, conversely, one could hypothesize that as a consequence of greater personal participation, or the activities of an agent acting for the landowner, the tenant was faced with a stronger bargaining power and a lease with a higher rent-share was the result. In actual practice, probably some of both would occur.

One may raise another question, however, concerning the level of landlord's management participation. This question deals with the amount of management input that is warranted or justified given two facts about the properties in question. These facts are:

1. A lower level of productivity than that which is normally associated with land under professional management in central and northern Illinois.

2. The smaller size of the tracts in question and the consequent smaller absolute net return to any given management input.

There is an inescapable amount of overhead cost in the management of such property. This is the travel and time required to visit the property. The time required to visit the property is fixed whether the tract in question is 40 or 400 acres and whether it is capable of producing 80 or

Table 12. — Landowner's Management, Hay Rent, Supplementary Cash Rent, and Written Leases and Dates Lease Years Begin, for Crop-Share Leases

	1/3 rent-share		2/5 rent-share		1/2 rent-share	
	With buildings	Without buildings	With buildings	Without buildings	With buildings	Without buildings
Number of tracts	108	279	46	88	18	19
Percent of landowners who						
Managed personally	16	19	13	24	17	33
Had an agent manage	3	3	9	8	11	6
Let the tenant manage	81	78	78	68	72	61
Number of landowners whose hay rent is						
None, not grown, or no response	52	196	36	68	6	16
1/3 share	27	29	0	0	0	0
2/5 share	0	0	4	7	0	0
1/2 share	26	45	5	12	5	3
All	0	4	0	0	0	0
Cash rent	3	5	1	1	1	0
Cash rent on farm buildings or house						
Number	13	2	3	0	0	0
Average annual rent paid	$173	$85	$247	...	...	...
Percent of leases written	13	10	29	15	22	0
Dates on which lease years begin (percent)						
January 1	34	26	28	25	52	32
March 1	19	26	24	30	18	5
August 1	4	3	7	8	6	16
Other dates	10	5	2	6	6	0
Don't know	20	22	20	16	12	21
No response	13	18	19	15	6	26

120 bushels of corn per acre. On balance, it may be a prudent decision by the landlord to make his management contribution in the form of contractual requirements in the lease agreement and then allow the tenant freedom of operational management within the framework thus created. In general, there is probably much greater tenant managerial freedom in the operation of these rented properties than that enjoyed by tenants on the more valuable and highly productive land in east-central Illinois.

It would be a mistake, however, to assume that these southern Illinois tenants have complete freedom in the operation of these properties. Table 13 reports some of the changes that the tenants would make if they were the owners as well as the operators of the tract in question. The questionnaire asked them to respond by checking one of three alternatives of using less than is now used of the item in question, about the same as now, or more than now.

Consider for the moment only the three fertility items of lime, potash, and nitrogen in Table 13. From 22 to 46 percent of the tenants indicated they would use more limestone than was currently being used, from 19 to 43 percent indicated they would use more potash, and from 9 to 33 percent indicated they would use more nitrogen. The differences in these responses are interesting in that limestone is the fertilizer input most universally supplied entirely by the landlord. The higher proportion of tenants who feel a deficiency in the current application of lime, therefore, suggests that variable inputs wholly provided by the landlord may not be provided in the same appropriate amount as the other elements in which both tenant and landlord tend to share. Clearly, a much smaller proportion of these tenants would increase nitrogen application as compared with limestone. Potash, while not significantly different from limestone in these responses, is a more complex problem in that it can be and is provided in mixed fertilizers whose cost is shared.

Table 13 shows an inverse relationship to the fertilizer inputs discussed above in relation to the landlord's management participation as related to the rent-share. Of the tenants paying only ⅓ rent-share, a much higher proportion felt a deficiency in the landlord's limestone input as compared with those tenants who were paying a ½ rent-share. Similar relationships, but to a somewhat lesser degree, are present for nitrogen and potash. Perhaps the typical ⅓-share tenant is buying a "package" that gives him greater management freedom but does not include the power to secure landlord participation in non-real estate inputs.

The evidence on land use is not quite as compelling, but it does lean in the direction of some change on some properties toward more corn

Table 13. — Percent of Crop-Share Tenants Indicating Changes They Would Make if They Were Owner-Operators on the Rented Tract, by Level of Rent-Share Paid and Improvements

		1/3 rent-share		2/5 rent-share		1/2 rent-share	
		With buildings	Without buildings	With buildings	Without buildings	With buildings	Without buildings
Number of tracts		108	279	46	88	18	19
Changes in acres or quantities used							
Lime	Less	0	0	0	0	0	0
	Same	60	54	63	61	78	65
	More	40	46	37	39	22	35
Potash	Less	0	0	0	1	0	0
	Same	63	57	78	64	81	71
	More	37	43	22	35	19	29
Nitrogen	Less	0	0	0	1	0	0
	Same	81	67	91	80	82	88
	More	19	33	9	19	18	12
Corn	Less	3	4	3	1	17	0
	Same	87	80	84	79	61	100
	More	10	16	13	20	22	0
Soybeans	Less	9	11	7	14	12	0
	Same	89	83	88	83	76	100
	More	2	6	5	3	12	0
Corn storage	Less	2	4	2	5	0	0
	Same	56	73	48	52	20	71
	More	42	23	50	43	80	29
Machinery storage	Less	3	4	5	5	0	0
	Same	52	76	46	79	54	60
	More	45	20	49	16	46	40

and less soybeans. It has been hypothesized that because some landlords are unwilling to provide or participate in fertility costs, tenants have adopted cropping systems more heavily in favor of soybeans because in the past this crop has been less responsive to fertilizer applications than corn, even though corn, adequately fertilized, might be a more profitable crop to grow. Again the evidence of land use is not overwhelming but it does indicate some need to follow the leasing plan which suggests that variable inputs such as fertilizer should be shared between tenant and landowner as the crop produced therefrom is shared.

On buildings, as might be expected, a significant proportion of the tenants responding indicated they wanted, or that as owners they would provide, more corn storage and more machinery storage. The proportions are about the same for both types of improvement but the proportions indicating the need for such improvements on what are now tracts without buildings are, of course, much smaller. How sincere these responses are that the tenants, if they became the owners, would actually provide such improvements on properties now without buildings is an open question. It could well be that the need for buildings is associated with these tracts of land but that, confronted with the need for making such a decision through investment of their own funds they might well choose to place these investments on property now under their own ownership or choose to use their funds for other purposes. In summary, Table 13 presents a challenge to landlords or their agents to more thoroughly study the possibility of profitable returns from added inputs, firstly in fertilizers and secondly in structural improvements.

Table 12 also shows hay rent and supplementary cash rent on buildings or the farm residence. On most of these rent-share tracts, either hay is not harvested nor grown as a crop, or the landlord does not share in it. Among those leaseholds calling for a ⅓ rent-share, there are two distinct groups, those who give the landlord a third of the hay crop and those who give him half of the hay crop. The tables on landlord cost-sharing (Tables 16 through 24) indicate that in nearly all cases where the landlord receives half of the hay crop he also provides either all of the legume or grass seed or at least half of these seeds. Very few leaseholds call for a cash rent on hay or pastureland. Not many more require a cash rent on the farm buildings or the farm residence. Of the 558 leaseholds reported in Table 12, only 18 reported some kind of supplementary cash rent on farm buildings or the farm residence. The amount of cash rent paid is small in that the average amount for the 18 farms reporting was about $175, in total, for the year. Clearly, this part of southern Illinois does not make much use of supplementary cash rent as an adjunct to the traditional share leases. The equitableness between landlord and tenant apparently is achieved to the satisfaction of both parties through either varying the rent-share given to the landlord or varying the landlord's participation in non-real estate inputs.

The informality of the leasing arrangements between tenant and landlord is attested to by the small proportion of cases in which the lease agreement is in writing. Among the six categories of crop-share leases reported in Table 12, the proportion of leases that are written ranged from 0 to 29 percent. This low percentage perhaps is understandable in an area that has long been characterized by oral agreements between family members or between neighbors where the competitive relationship implied by a written contract would seem alien to the parties involved. This is an area with a long history of considerable field-renting in which the leasehold does not consist of the complete ownership tract but rather of a designated field or portion of such tracts. Thus, even though all leaseholds under 20 acres were excluded from the sample, the informal pattern of relationships apparently permeates the entire rental market.

Evidence concerning the informality of the landlord-tenant relationship is also found in the pattern of lease years. In central and northern Illinois, the traditional beginning date for the lease year is March 1. In southwestern Illinois, many lease years begin on August 1. Such lease years would include both the planting and harvesting of the winter wheat crop. Originally, this was the purpose of such a lease year. With the shift to corn and soybeans, August 1 is no longer a practical date for the beginning of a new lease year because it would put the planting and harvesting of these major crops in different lease years. On the other hand, the lease year beginning March 1 was developed to minimize the amount of winter livestock feed that the tenant would be required to move if he changed farms. Given the small size of most of the leaseholds in southern Illinois and the high proportion of these tracts that are without buildings, there is no compulsion to use a March 1 lease and the typical date is now January 1.

The most disturbing evidence in Table 12 on the question of the beginning date for the lease year is the high proportion of respondents who indicated they did not know when their lease year began or who failed to respond to the question. If it is assumed that no response indicates no knowledge of the lease term, then roughly 30 to 45 percent of these tenants were unable to say when their lease year begins. The potential for serious problems to arise out of this state of affairs is particularly great in view of the varied pattern of lease terms in the area. If a landlord gives his tenant a written notice to terminate the lease under the assumption that the lease year begins on March 1, but the tenant disregards it because he is under the impression that his lease year begins on January 1, either the notice is therefore too late to be legally valid, or a problem is created that could have been avoided.[1] Even the courts would have difficulty in deciding such an issue because there is no clear preponderance of one lease date in the area. A written lease with a specified date for the beginning of the lease year is the best solution to this potential problem. In any case, some communication and agreement on a date, orally or in writing, between the tenant and landlord is highly recommended.

ESTIMATED CASH RENTS

Tables 3 and 4 show that the proportion of cash leases was probably less than 8 percent of the total number of leaseholds in the area. This means that only one out of every 13 or 14 leasehold tracts was rented on a cash basis. Because many of these leases were between related parties, only a meager bit of evidence may be available in any given community about what the competitive cash rents for farmland in the area might actually be. Nevertheless, the questionnaire asked respondents to give an estimate of the maximum gross cash rent that, in their opinion, a tenant could afford to pay for the tracts in question. In spite of the lack of market information, 411 of the 558 share tenants reported such a figure. The results are summarized in Table 14.

The range of rents reported per tillable acre is rather wide within any of the groups in Table 14. Part of this range no doubt reflects the lack of knowledge concerning going cash rents, but it also no doubt reflects the actual range of productivity or actual value of the tracts in question, as was noted earlier in connection with corn yields on properties with tenants related to their landlords. If the ½ rent-share group is left out, the data in Table 14 seem consistent in that the average estimated cash rents for the ⅖ rent-share tracts are significantly higher than for the ⅓ rent-share tracts. Likewise, the rents estimated for tracts with buildings were higher, although not greatly so, than for tracts without buildings.

Furthermore, one must remember that what was asked for in the questionnaire was an estimated maximum gross cash rent rather than an estimated prevailing cash rent. Possibly the concept of a maximum cash rent contributed to the lack of enthusiasm for such leases, as is reported

---

[1] Legally, a four-month notice must be given by landlord or tenant if either party wishes to terminate the lease.

Table 14. — Estimated Maximum Gross Cash Rent per Tillable Acre for the Leased Tract; Crop-Share Leases by Rent-Shares

	1/3 rent-share		2/5 rent-share		1/2 rent-share	
	With buildings	Without buildings	With buildings	Without buildings	With buildings	Without buildings
Number of tracts................	108	279	46	88	18	19
Number of tenants estimating rent	75	212	34	66	12	12
Average amount of estimated cash rent per tillable acre.........	$19.37	$18.50	$26.56	$24.82	$22.92	$25.42
	(Number of tenants)					
Ranges in estimated cash rent						
Under $7.50....................	1	9	0	0	1	0
$7.50 to $12.49................	13	38	0	3	0	0
$12.50 to $17.49...............	16	38	2	10	1	2
$17.50 to $22.49...............	20	76	9	13	4	4
$22.50 to $27.49...............	19	31	10	12	2	1
$27.50 to $32.49...............	5	16	6	19	3	3
$32.50 to $37.49...............	0	2	5	8	1	1
$37.50 or more.................	1	2	2	1	0	1
Percent of tenants responding who would prefer to cash rent......	7	8	12	14	12	6

in Table 14. Only 7 or 8 percent of the ⅓ rent-share tenants indicated they would prefer to rent on a cash basis. Among the ⅖ rent-sharing tenants, the proportion preferring cash leases was 12 and 14 percent, somewhat higher but still small in relation to the total. This contrasts vividly with the preference stated by those who are renting on a cash basis where 89 percent or more of the tenants preferred a cash rent (see Table 28).

The strong preference for rent-shares is no doubt also related to the higher risk (higher instance of crop failure in southern Illinois as compared with the rest of the state) and also to the relative management freedom already noted earlier on the part of the many tenants on these smaller leaseholds. The risk discount to make a cash lease attractive would have to be substantial, whereas the amount of managerial freedom to be gained would not be substantial.

CUSTOM FARMING

An alternative to leasing land that has attracted some interest in recent years is a custom farming arrangement under which the landowner retains the status of operator and contracts with another party, who might otherwise be the tenant, to perform the necessary field work of seedbed preparation, cultivation, and harvesting the crop. Under such an arrangement the landlord, or operator as he might be called, would, of course, be responsible for all nonland inputs, such as seed, fertilizer, and pesticides. The tenants responding to the questionnaire were asked to indicate what they thought would be a fair contract payment for all of

Table 15. — Responses of Crop-Share Tenants to a Custom-Farming Alternative: Estimated Rates and Preferences by Rent-Share Paid

	1/3 rent-share	2/5 rent-share	1/2 rent-share
Number of tracts	387	134	37
Percent of estimated custom rates per acre of corn			
Under $28	36	22	25
$28 to $30	21	20	26
$31 to $33	12	13	20
$34 or more	31	45	29
Operator's preference Percent who would			
Accept a contract	37	37	51
Drop the farm	63	63	49

their labor and for machinery and gasoline expenses in producing and harvesting an acre of corn. They were asked to choose among a series of payment rates which are condensed in Table 15 together with the frequency of their responses. A footnote in the questionnaire indicated that, in responding to this question, the respondents should assume that the landlord makes all management decisions and supplies all fertilizer, seed, and chemicals. Even so, some written comments and qualifications to the rates selected indicated that some respondents assumed minimum tillage operations while others did not. Thus, some of the responses have to be attributed to a lack of uniformity in the number of operations to be performed by the custom operator. Many tenants, both those who did and did not make a choice, indicated that they had no idea of what a going custom rate might be for their area. The willingness to accept a custom contract did not appear to be related to the contract rates selected.

COST-SHARING PRACTICES

In addition to furnishing the land and buildings on the property in question, most rent-share landlords will also share to some degree in stated non-real estate cost items. Most of these are in the nature of variable expenses such as fertilizer, crop seeds, and pesticides. They are variable in that the amount of these inputs employed is related to the level of crop production. A cardinal principle in cost sharing under rent-share leases states that all variable expenses should be shared in the same proportion as the crop is shared.[1] Proportional sharing creates the same incentive for both parties to employ optimum amounts of such inputs. With the exception of fertilizers, there are many departures from this rule in southern Illinois, but the breach of this rule in the case of seed and harvesting costs appears not to have had very serious consequences.[2]

The farm lease categories or groups reported in Tables 16 through 24 are also those reported in Table 4, except for the ⅓ rent-share leases on tracts without buildings. In this case, the numbers were sufficiently large to permit division of that category into four subgroups on the basis of how herbicides and fertilizers were or were not shared by the landowner. Herbicides and fertilizers are two examples of variable costs whose level of input may be affected by the incentive condition of agreements to share their cost between landlord and tenant. Herbicides, however, differ from fertilizers in that they may substitute for other inputs as well as have a direct effect on output.[1] It is this substitution effect for the tenant's labor and machinery costs that causes some landlords to refuse to share in the herbicide costs. Herbicide costs thus become a bargaining item with some landlords sharing in the cost and some not doing so. To determine what the total cost-sharing pattern looks like under these conditions, the four subgroups under the ⅓ rent-share were set up as shown below.

---

[1] Variable expenses are those that can be used in varying amounts at the discretion of management. Seed, fertilizer and pesticides are good examples. For a complete discussion of share-lease principles, see Circular 918, What Is a Fair Crop-Share Lease?

[2] For general recommendations on cost-sharing practices see pages 31 to 41 in Circular 960, Farm Leases for Illinois.

	Number of leaseholds	Table No.
⅓ rent-share:		
Tracts with buildings	106	16
Tracts with no buildings		
Landlord shares in herbicides and mixed fertilizers	119	17
Landlord does not share in herbicides or mixed fertilizer	19	18
Landlord does not share in herbicides, and no mixed fertilizer used	15	19
Landlord shares in mixed fertilizer but not in herbicides	126	20
⅔ rent-share:		
Tracts with buildings	46	21
Tracts with no buildings	88	22
½ rent-share:		
Tracts with buildings	18	23
Tracts with no buildings	19	24

Farm buildings are a part of the landlord's real estate input that does not produce an identifiable return that lends itself to a rent-share. The annual cost of furnishing and maintaining a set of farm buildings can be substantial, especially per unit of crop production on small ownership tracts. Separating the cost-sharing patterns on tracts with buildings from those without buildings is a means of testing the hypothesis that the landlord's cost sharing will be different in the two cases.[2]

Table 16 deals with 106 farms or tracts with buildings, rented under ⅓ crop-share leases. The table presents a somewhat mixed pattern in that some landlords participated in these costs and others did not. In general, however, the following might characterize this group of farms. Most landlords furnished one-third of all annual fertilizers. Somewhat fewer than half of the landlords in question shared in bulk fertilizer spreading costs and anhydrous nitrogen applications. Only about one-third indicated they specifically did not share in these costs, leaving a sizable number who did not respond to the question, possibly because it did not apply to their situation. The pattern in contributing seed costs seems quite clear. Ninety percent or more of the landlords did not share in any of the crop seed costs. The pattern on alfalfa and legume grass seeds was one of the landlord either furnishing all of these seeds or none of them. As was noted earlier, when the landowner shares in the hay crop, he generally furnishes all of the seed.

---

[1] Technically speaking, fertilizer also has substitution effects, but they are less pronounced.

[2] See AERR-125, Landlord and Tenant Shares 1972, for building and other costs on rented land. Available from the Department of Agricultural Economics, University of Illinois, Urbana, Ill. 61801.

Crop protection expenditures for insecticides and herbicides appear to be a bargaining item. From 35 to 50 percent of the tenants reported that their landlord did not share in one or more of these costs. In a smaller number of cases, the report was that the landlord paid one-third of these materials. Again, these numbers leave a group of nonrespondents to whom the expenditure apparently did not apply because the materials were not used.

Harvesting costs, too, are something of a bargaining item in that approximately 75 to 85 percent of the landowners were reported as not sharing in harvesting costs. Hauling landlord's grain to market is an interesting item in that approximately half of the landlords were reported as paying nothing on the cost of hauling from storage to market, whereas about 85 percent paid nothing on hauling from the field to market. A number of questionnaires reported various charges ranging from one-third to all of the cost, or gave specific payments per bushel.

In summary, then, it appears that the ⅓ crop-share leased tracts with buildings on them present a mixed pattern of cost sharing in that apparently some bargaining and tradeoffs occur in the areas of harvesting costs, crop protection costs, and, to some extent, in annual fertilizers. How much these varying cost shares contributed by the landlord are a direct response to the varying extent and value of farm buildings on the leasehold cannot be determined from the questionnaire.[1]

As was noted earlier, the remaining 279 crop-share leases on ⅓ rent-shares on properties with no buildings were divided into four groups. The group with 119 tracts consisted of those in which the landlord shared in mixed fertilizers and some herbicide costs, and the other three were groups in which the landlord did not share in herbicide costs.

A more uniform pattern of fertilizer cost sharing seems to appear on those 119 farms or rental tracts in which the landlord shared in some

---

[1] For a financial summary of the dollar value of tenant and landlord costs, see AERR-125, Landlord and Tenant Shares 1972.

Table 16. — Number of Leaseholds With Indicated Landlord Cost-Sharing Under ⅓ Crop-Share Leases on Tracts With Buildings (Total of 106 Farms Reporting)

Cost items	Landlord's share of each item					
	None	1/3	2/5	1/2	All	Other
Fertilizer materials						
Limestone	2	12	0	4	86	0
Rock phosphate	10	18	0	1	59	0
Potash	10	54	0	6	28	0
Nitrogen (all forms)	14	83	0	4	2	0
Mixed fertilizers	12	85	1	5	2	0
Superphosphate	9	60	0	5	8	0
Fertilizer application						0
Bulk spreading	29	49	0	3	7	0
Anhydrous application	32	42	0	2	1	0
Crop seeds						
Corn	98	4	0	2	0	0
Soybeans	92	4	0	2	0	0
Wheat	91	4	0	2	0	0
Alfalfa	53	1	0	2	14	0
Legumes and grasses	44	6	0	4	39	0
Insecticides						
On crops in the field	57	33	0	3	0	0
On livestock	51	3	0	2	0	0
Herbicides (weed killers or weed-control chemicals)						
Broadcast (Atrazine, Simazine, Treflan, Sutan, etc.)	53	38	0	2	1	0
Preemergence banded over the row	52	24	0	2	0	0
Postemergence (2,4-D, etc.)	49	23	0	2	2	0
Johnsongrass rhizome (Old plants) control	36	7	0	2	7	0
Johnsongrass seedlings	37	6	0	2	4	0
Harvesting						
Combining soybeans	84	21	0	0	0	1
Combining wheat	76	20	0	0	0	1
Harvesting ear corn	75	10	0	0	0	0
Harvesting shelled corn	77	15	0	1	0	3[a]
Baling hay	45	10	1	20	0	1
Crop drying						
Corn-drying equipment	45	3	0	0	3	0
Fuel and electricity on corn drying	43	8	0	1	0	1[b]
Hauling landlord's grain						
From field to market	85	12	0	1	2	2[b]
From storage to market	50	10	0	1	10	4[b]

[a] Three cents per bushel on landlord's share.
[b] Six to ten cents per bushel.

Table 17. — Number of Leaseholds With Indicated Landlord Cost-Sharing Under ⅓ Crop-Share Leases With Landlord Sharing in Mixed Fertilizer and Some Herbicide Costs on Tracts With No Buildings (Total of 119 Farms Reporting)

Cost items	Landlord's share of each item					
	None	1/3	2/5	1/2	All	Other
Fertilizer materials						
Limestone	1	7	0	5	102	0
Rock phosphate	1	19	0	8	68	0
Potash	0	78	0	12	26	0
Nitrogen (all forms)	1	107	0	4	1	0
Mixed fertilizers	0	115	0	2	0	0
Superphosphate	2	90	0	4	7	0
Fertilizer application						
Bulk spreading	34	65	0	4	0	0
Anhydrous application	43	45	0	2	1	0
Crop seeds						
Corn	101	13	0	0	0	0
Soybeans	104	9	0	0	0	0
Wheat	100	10	0	0	0	0
Alfalfa	56	3	0	2	8	0
Legumes and grasses	38	10	0	10	44	0
Insecticides						
On crops in the field	31	78	0	2	0	0
On livestock	33	0	0	0	1	0
Herbicides (weed killers or weed-control chemicals)						
Broadcast (Atrazine, Simazine, Treflan, Sutan, etc.)	6	99	0	2	0	0
Preemergence banded over the row	9	78	1	2	0	0
Postemergence (2,4-D, etc.)	18	60	0	2	0	0
Johnsongrass rhizome (old plants) control	11	20	0	1	13	0
Johnsongrass seedlings	10	14	0	1	10	0
Harvesting						
Combining soybeans	81	31	1	0	0	0
Combining wheat	78	29	1	0	0	0
Harvesting ear corn	82	10	0	0	0	0
Harvesting shelled corn	85	19	0	0	0	2[a]
Baling hay	46	11	0	16	0	1
Crop drying						
Corn-drying equipment	55	5	0	0	0	1
Fuel and electricity on corn drying	49	9	0	0	0	2
Hauling landlord's grain						
From field to market	91	12	0	0	4	2[a]
From storage to market	55	5	0	0	6	0

[a] Two to five cents per bushel.

herbicide costs (Table 17). In no cases did the landlord fail to participate in fertilizer costs. Limestone and rock phosphate were primarily furnished entirely by the landowner, with the landowner sharing one-third of the costs of potash, nitrogen, mixed fertilizers, and superphosphates. Also, more of these landlords participated in bulk spreading costs and anhydrous ammonia application.

With the exception of alfalfa and legume and grass seeds, very few of these landlords shared in crop seed costs. Crop protection costs for herbicides and insecticides were more fully shared on a one-third basis than in the previous group. Combining and hauling costs appeared to be something of a bargaining item, with the predominant pattern being one of no landlord participation in the cost.

The 160 remaining ⅓ crop-share leased tracts, all of which had no participation by the landlord in herbicide cost, were divided into three subgroups. The first, consisting of only 19 farms, consisted of those tracts on which the landlord not only did not share in herbicide costs but also did not share in mixed fertilizer costs (Table 18). This group emerges as an interesting group in that it has a consistent pattern of the landlord not sharing in any items on the list of operating costs. Only one of these 19 landowners shared in most of these costs. The result is a pattern in which the ⅓ rent-share becomes in effect a net rent except for the landlord's taxes and limestone and rock phosphate costs in the few cases where these were shared by the landlord. These leases violate the basic principle of sharing variable costs, but it should not be concluded *a priori* that these leases were unfair or inequitable for the tenants. If it is assumed that these soils were good enough to command a two-fifths share of the crop as a gross rental, and that the tenant would operate at an optimum total farm level, then it would not matter to the landlord if he received two-fifths of the crop and shared in fertilizer and other variable costs in a total amount equal to 7 percent of the crop, or if he received only a one-third share of the crop and paid none of these costs.

No doubt some of these farms fall in that category. A high degree of kinship may exist between the tenant and the landowner and the prevailing ⅓ rent-share may be a concession to the tenant in compensation for his assuming all of these costs. If this is the situation, these leaseholds may prove quite satisfactory. However, as a general recommendation, particularly where kinship does not play a significant role, the rent-share should approximate the gross rental value of the tracts in question with a sharing of variable costs by the landowner in proportion to his rent-share.

A second subgroup of 15 of these 160 crop share leases is one in which the landowner has no share in herbicides and on which no mixed

Table 18. — Number of Leaseholds With Indicated Landlord Cost-Sharing Under ⅓ Crop-Share Leases With Landlord Not Sharing in Herbicide and Mixed Fertlizer Costs on Tracts With No Buildings (Total of 19 Farms Reporting)

Cost items	Landlord's share of each item					
	None	1/3	2/5	1/2	All	Other
Fertilizer materials						
Limestone	11	0	0	0	7	0
Rock phosphate	14	0	0	0	4	0
Potash	17	0	0	0	2	0
Nitrogen (all forms)	16	1	0	0	0	0
Mixed fertilizers	18	0	0	0	0	0
Superphosphate	14	0	0	0	0	0
Fertilizer application						
Bulk spreading	14	0	0	0	1	0
Anhydrous application	15	1	0	0	0	0
Crop seeds						
Corn	17	0	0	0	0	0
Soybeans	17	1	0	0	0	0
Wheat	14	1	0	0	0	0
Alfalfa	12	1	0	0	0	0
Legumes and grasses	10	0	0	0	3	0
Insecticides						
On crops in the field	16	0	0	0	1	0
On livestock	13	0	0	0	0	0
Herbicides (weed killers or weed-control chemicals)						
Broadcast (Atrazine, Simazine, Treflan, Sutan, etc.)	17	0	0	0	0	0
Preemergence banded over the row	13	0	0	0	0	0
Postemergence (2,4-D, etc.)	12	0	0	0	0	0
Johnsongrass rhizome (old plants) control	13	0	0	0	0	0
Johnsongrass seedlings	12	0	0	0	0	0
Harvesting						
Combining soybeans	17	1	0	0	0	0
Combining wheat	13	0	0	0	0	0
Harvesting ear corn	11	1	0	0	0	0
Harvesting shelled corn	13	0	0	0	0	0
Baling hay	9	1	0	1	0	0
Crop drying						
Corn-drying equipment	12	0	0	0	0	0
Fuel and electricity on corn drying	12	0	0	0	0	0
Hauling landlord's grain						
From field to market	16	0	0	0	1	0
From storage to market	11	0	0	0	0	0

fertilizer was used (Table 19). This distinguishes these tracts from the previous 19 where mixed fertilizer was used but the landowner did not participate in the cost.

In contrast to the previous group which exhibited a consistent pattern of landlord nonparticipation in operating costs, the present group of 15 tracts appears to exhibit a pattern of nonuse, particularly as far as fertilizer materials are concerned. However, on a number of these farms the landowner shared in both crop seeds and in harvesting costs, that is, combining of soybeans and wheat.

It is possible that in contrast to the previous group of 119 farms, which might have very highly productive soils, the present group of 15 farms might represent very low productivity, and it would be necessary for the landowner to share in crop seed and in combining costs in order to earn a one-third share of the crop. Also, many of these tracts may be largely pasture units with little or no tillable land on them. This could account for the lack of fertilizer use.

The third subgroup is a large one consisting of 126 tracts with ⅓ crop-share leases on which the landlords had some share in mixed fertilizer costs but no share in herbicides (Table 20). Again, these are all tracts without buildings.

This group of leaseholds probably represents the clearest pattern of cost sharing. Most of the landlords furnished all of the limestone and on most of the tracts the annual fertilizer costs were shared ⅓-⅔ as the crop was shared. Rock phosphate and potash costs seemed to be in transition with some of the leases calling for them to be shared ⅓-⅔ while in some cases the landlord furnished all of these items. Few of these landlords had any share in crop seed costs, with the exception of legumes and grasses where 44 of the 126 landlords furnished all of these seeds. Where they were used, crop protection costs were furnished almost completely by the tenant. Combining costs represented almost the only bargaining item in that about 20 percent of the landowners did share one-third in these costs. Hauling grain to market from storage or from the field was a tenant responsibility.

The ⅖ crop-share leaseholds are reported in Tables 21 and 22. Table 21 reports leases on tracts with buildings and Table 22 reports leases on tracts with no buildings. The presence or absence of buildings seems to have very little effect on the cost-sharing arrangements between tenant and landlord because a similar pattern seems to prevail in both of these tables. A high proportion of landlords in both cases shared proportionately in all fertilizer costs except costs for limestone and rock phosphate and a significant number shared in crop protection costs, including costs of herbicides and insecticides. Combining, harvesting, and hauling in both cases were almost exclusively the tenant's responsibility. A sig-

Table 19. — Number of Leaseholds With Indicated Landlord Cost-Sharing Under ⅓ Crop-Share Leases With Landlord Having No Share in Herbicide Costs and No Mixed Fertilizer Used on Land With No Buildings (Total of 15 Farms Reporting)

Cost items	Landlord's share of each item					
	None	1/3	2/5	1/2	All	Other
Fertilizer materials						
Limestone	0	6	0	0	5	0
Rock phosphate	0	2	0	1	3	0
Potash	1	4	0	2	1	0
Nitrogen (all forms)	0	6	0	0	0	0
Mixed fertilizers	0	2[a]	0	0	0	0
Superphosphate	0	3	0	0	0	0
Fertilizer application						
Bulk spreading	1	5	0	0	0	0
Anhydrous application	0	2	0	0	0	0
Crop seeds						
Corn	4	2	0	0	0	0
Soybeans	3	3	0	0	0	0
Wheat	3	1	0	0	0	0
Alfalfa	1	0	0	0	0	0
Legumes and grasses	1	1	0	0	0	0
Insecticides						
On crops in the field	3	0	0	0	0	0
On livestock	1	0	0	0	0	0
Herbicides (weed killers or weed-control chemicals)						
Broadcast (Atrazine, Simazine, Treflan, Sutan, etc.)	7	0	0	0	0	0
Preemergence banded over the row	3	0	0	0	0	0
Postemergence (2,4-D, etc.)	2	0	0	0	0	0
Johnsongrass rhizome (old plants) control	2	0	0	0	0	0
Johnsongrass seedlings	2	0	0	0	0	0
Harvesting						
Combining soybeans	6	5	0	0	0	0
Combining wheat	4	13	0	0	0	0
Harvesting ear corn	4	0	0	0	0	0
Harvesting shelled corn	4	0	0	0	0	0
Baling hay	4	0	0	1	0	0
Crop drying						
Corn-drying equipment	2	0	0	0	0	0
Fuel and electricity on corn drying	2	0	0	0	0	0
Hauling landlord's grain						
From field to market	4	1	0	0	1	0
From storage to market	3	0	0	0	0	0

[a] These two instances were farms that did not use mixed fertilizers, as was true of the other 17, but their leases provided that if such fertilizers were used, the landlord would pay one-third of the cost.

Table 20. — Number of Leaseholds With Indicated Landlord Cost-Sharing Under ⅓ Crop-Share Leases With Landlord Having Some Share in Mixed Fertilizer Costs but No Share in Herbicides on Tracts With No Buildings
(Total of 126 Farms Reporting)

Cost items	Landlord's share of each item					
	None	1/3	2/5	1/2	All	Other
Fertilizer materials						
Limestone..................	2	15	0	4	93	0
Rock phosphate.............	3	24	0	4	68	0
Potash.....................	5	61	0	7	32	0
Nitrogen (all forms)........	4	105	0	2	2	0
Mixed fertilizers...........	0	122	0	3	1	0
Superphosphate..............	5	75	0	2	10	0
Fertilizer application						
Bulk spreading..............	39	55	0	4	3	0
Anhydrous application.......	44	39	0	2	1	0
Crop seeds						
Corn........................	108	4	0	0	1	0
Soybeans....................	105	4	0	0	1	0
Wheat.......................	103	5	0	0	1	0
Alfalfa.....................	62	4	0	0	7	0
Legumes and grasses.........	53	7	0	1	44	0
Insecticides						
On crops in the field.......	92	6	0	0	2	0
On livestock................	63	0	0	0	0	0
Herbicides (weed killers or weed-control chemicals)						
Broadcast (Atrazine, Simazine, Treflan, Sutan, etc.).......	99	0	0	0	0	0
Preemergence banded over the row.....................	95	0	0	0	0	0
Postemergence (2,4-D, etc.).	88	0	0	0	0	0
Johnsongrass rhizome (old plants) control............	74	0	0	0	0	0
Johnsongrass seedlings......	69	0	0	0	0	0
Harvesting						
Combining soybeans..........	92	29	0	0	0	0
Combining wheat.............	92	25	0	0	0	0
Harvesting ear corn.........	89	6	0	0	0	0
Harvesting shelled corn.....	93	8	0	0	0	1
Baling hay..................	51	13	0	13	2	0
Crop drying						
Corn-drying equipment.......	64	0	0	0	0	0
Fuel and electricity on corn drying................	61	1	0	0	0	1
Hauling landlord's grain						
From field to market........	98	11	0	0	1	2
From storage to market......	65	3	0	0	2	1

Table 21. — Number of Leaseholds With Indicated Landlord Cost-Sharing Under ⅔ Crop-Share Leases on Tracts With Buildings (Total of 46 Farms Reporting)

Cost items	Landlord's share of each item					
	None	1/3	2/5	1/2	All	Other
Fertilizer materials						
Limestone..................	0	0	0	1	41	0
Rock phosphate..............	1	0	7	0	28	0
Potash......................	1	0	29	1	13	0
Nitrogen (all forms)........	1	0	42	1	0	0
Mixed fertilizers...........	1	0	42	1	0	0
Superphosphate..............	1	0	33	1	4	0
Fertilizer application						
Bulk spreading..............	10	0	33	1	2	0
Anhydrous application.......	16	0	25	1	0	0
Crop seeds						
Corn........................	36	0	8	0	1	0
Soybeans....................	36	0	6	0	0	0
Wheat.......................	35	0	6	0	0	0
Alfalfa.....................	11	0	0	0	12	0
Legumes and grasses.........	11	0	1	2	24	0
Insecticides						
On crops in the field.......	12	0	29	0	0	0
On livestock................	12	0	0	2	0	0
Herbicides (weed killers or weed-control chemicals)						
Broadcast (Atrazine, Simazine, Treflan, Sutan, etc.).......	10	0	33	1	0	0
Preemergence banded over the row....................	10	1	30	1	0	0
Postemergence (2,4-D, etc.).	16	0	17	1	0	0
Johnsongrass rhizome (old plants) control.............	8	0	3	1	18	0
Johnsongrass seedlings......	8	0	7	1	12	0
Harvesting						
Combining soybeans..........	41	0	3	0	0	0
Combining wheat.............	40	0	3	0	0	0
Harvesting ear corn.........	32	0	1	0	0	0
Harvesting shelled corn.....	44	0	1	0	0	1
Baling hay..................	21	0	1	5	0	0
Crop drying						
Corn-drying equipment.......	21	0	2	5	0	0
Fuel and electricity on corn drying................	16	0	9	0	1	1
Hauling landlord's grain						
From field to market........	40	0	3	0	1	0
From storage to market......	25	0	3	0	4	0

Table 22. — Number of Leaseholds With Indicated Landlord Cost-Sharing Under ⅔ Crop-Share Leases on Tracts With No Buildings (Total of 88 Farms Reporting)

Cost items	Landlord's share of each item					
	None	1/3	2/5	1/2	All	Other
Fertilizer materials						
Limestone	2	0	6	0	76	0
Rock phosphate	5	0	20	0	49	0
Potash	1	0	54	0	26	0
Nitrogen (all forms)	0	0	84	0	0	0
Mixed fertilizers	0	0	87	0	0	0
Superphosphate	0	0	66	0	9	0
Fertilizer application						
Bulk spreading	20	0	54	0	2	0
Anhydrous application	30	0	48	0	0	0
Crop seeds						
Corn	74	0	10	0	0	0
Soybeans	72	0	8	0	0	0
Wheat	68	0	7	0	1	0
Alfalfa	22	0	1	0	14	0
Legumes and grasses	15	0	2	2	42	0
Insecticides						
On crops in the field	30	0	45	0	0	0
On livestock	19	0	0	0	0	0
Herbicides (weed killers or weed-control chemicals)						
Broadcast (Atrazine, Simazine, Treflan, Sutan, etc.)	24	0	54	0	1	0
Preemergence banded over the row	24	0	45	0	1	0
Postemergence (2,4-D, etc.)	36	0	23	0	2	0
Johnsongrass rhizome (old plants) control	24	0	4	0	24	0
Johnsongrass seedlings	24	0	8	0	11	0
Harvesting						
Combining soybeans	76	0	6	0	0	2
Combining wheat	73	0	6	0	0	0
Harvesting ear corn	69	0	0	0	0	1
Harvesting shelled corn	79	0	0	0	0	1
Baling hay	27	0	1	9	0	0
Crop drying						
Corn-drying equipment	36	0	3	0	0	1
Fuel and electricity on corn drying	31	0	5	0	1	2
Hauling landlord's grain						
From field to market	81	0	5	0	1	0
From storage to market	42	0	2	0	6	1

nificant number of landlords in both groups provided all of the chemical for the control of Johnsongrass.

Crop-share leases on a one-half rent-share are reported in Tables 23 and 24. A group of 18 tracts with buildings is reported in Table 23 and 19 tracts without buildings are reported in Table 24.

Except for limestone and rock phosphate, the group of 19 tracts without buildings seems to be characterized by a 50-50 division of nearly all costs except harvesting and hauling costs. In contrast, among the 18 farms or tracts with buildings, there are a number of landowners who did not share in any of the costs of fertilizer, crop seeds, and crop protection. Except for these cases, this group also has a 50-50 pattern of sharing costs. It is difficult to rationalize the failure of some landlords to share variable costs unless their building contribution is high enough to adequately offset these costs. In general, a rent-share equal to half of the crop produced is difficult to justify in southern Illinois. Only a small proportion of leaseholds in the survey were rented on this basis and among these sharing of the crop through a proportional participation in a wide range of operating costs or a possible building contribution sufficiently great in annual value to offset them may justify such leases.

GRAIN STORAGE AND DRYING COSTS

Tables 16 through 24 show that not many landlords in southern Illinois participate in corn-drying costs. One obvious reason for this lack of participation is that less than one-third of the leaseholds in the study had any type of improvements on them. That is, only 205 of the 642 leaseholds reported any buildings on the rented tract. Another reason is that probably less corn is artificially dried in southern Illinois as compared with the rest of the state. There is also less shelled corn harvested in southern Illinois than in the cash-grain area of east-central Illinois. Nevertheless, the question does occur as a cost-sharing problem between tenants and landlords.

A summary of corn storage and drying facilities on rented land with buildings is presented in Table 25. This information is reported by type of lease and level of rent-share under crop-share leases. About half of the farms included in Table 25 were rented under a ⅓ crop-share lease. Only 24 of these 108 farms reported having some shelled corn storage, and only 16 reported having enough shelled corn storage. Only 12 landlords dried some of their grain on the rented tract. Of these, five furnished the bin and drier and eight participated in drying costs.

The next largest group was the one with 46 farms on ⅖ crop-share leases. One-third of these landlords dried some grain on the rented

Table 23. — Number of Leaseholds With Indicated Landlord Cost-Sharing Under ½ Crop-Share Leases on Tracts With Buildings (Total of 18 Farms Reporting)

Cost items	Landlord's share of each item					
	None	1/3	2/5	1/2	All	Other
Fertilizer materials						
Limestone	3	0	0	5	10	0
Rock phosphate	3	0	0	5	8	0
Potash	3	0	0	8	5	0
Nitrogen (all forms)	3	0	0	14	1	0
Mixed fertilizers	3	0	0	13	1	0
Superphosphate	3	0	0	10	1	0
Fertilizer application						
Bulk spreading	5	0	0	11	1	0
Anhydrous application	5	0	0	9	1	0
Crop seeds						
Corn	2	0	0	12	3	0
Soybeans	2	0	0	12	3	0
Wheat	2	0	0	12	3	0
Alfalfa	2	0	0	5	2	0
Legumes and grasses	2	0	0	8	4	0
Insecticides						
On crops in the field	3	0	0	14	0	0
On livestock	1	0	0	1	0	0
Herbicides (weed killers or weed-control chemicals)						
Broadcast (Atrazine, Simazine, Treflan, Sutan, etc.)	5	0	0	10	0	0
Preemergence banded over the row	5	0	0	11	0	0
Postemergence (2,4-D, etc.)	6	0	0	9	0	0
Johnsongrass rhizome (old plants control)	4	0	0	1	4	0
Johnsongrass seedlings	4	0	0	5	0	0
Harvesting						
Combining soybeans	6	0	0	12	0	0
Combining wheat	6	0	0	11	0	0
Harvesting ear corn	5	0	0	5	0	0
Harvesting shelled corn	4	0	0	9	0	2
Baling hay	4	0	0	8	0	0
Crop drying						
Corn-drying equipment	5	0	0	2	1	0
Fuel and electricity on corn drying	4	0	0	3	0	1
Hauling landlord's grain						
From field to market	8	0	0	8	2	0
From storage to market	5	0	0	5	1	0

Table 24. — Number of Leaseholds With Indicated Landlord Cost-Sharing Under ½ Crop-Share Leases on Tracts With No Buildings (Total of 19 Farms Reporting)

Cost items	Landlord's share of each item					
	None	1/3	2/5	1/2	All	Other
Fertilizer materials						
Limestone	0	0	0	1	14	0
Rock phosphate	0	0	0	1	12	0
Potash	0	0	0	8	6	0
Nitrogen (all forms)	0	0	0	14	1	0
Mixed fertilizers	0	0	0	13	2	0
Superphosphate	0	0	0	10	3	0
Fertilizer application						
Bulk spreading	1	0	0	11	3	0
Anhydrous application	5	0	0	7	0	0
Crop seeds						
Corn	1	0	0	9	5	0
Soybeans	1	0	0	6	6	0
Wheat	1	0	0	7	5	0
Alfalfa	1	0	0	0	2	0
Legumes and grasses	0	0	0	2	6	0
Insecticides						
On crops in the field	0	0	0	16	0	0
On livestock	0	0	0	0	0	0
Herbicides (weed killers or weed-control chemicals)						
Broadcast (Atrazine, Simazine, Treflan, Sutan, etc.)	2	0	0	13	1	0
Preemergence banded over the row	4	0	0	9	0	0
Postemergence (2,4-D, etc.)	3	0	0	9	1	0
Johnsongrass rhizome (old plants) control	2	0	0	3	2	0
Johnsongrass seedlings	2	0	0	3	0	0
Harvesting						
Combining soybeans	6	0	0	10	0	0
Combining wheat	6	0	0	9	0	0
Harvesting ear corn	7	0	0	4	0	0
Harvesting shelled corn	8	0	0	8	0	0
Baling hay	3	0	0	3	0	2
Crop drying						
Corn-drying equipment	2	0	0	0	0	0
Fuel and electricity on corn drying	4	0	0	0	0	0
Hauling landlord's grain						
From field to market	10	0	0	4	2	1
From storage to market	3	0	0	1	0	0

Table 25. — Extent of Grain Storage and Drying Costs Furnished on Rental Properties With Buildings on Them by Type of Lease

	Type of lease and rent-share				
	Crop-share leases			Livestock share leases	Cash leases
	1/3 share	2/5 share	1/2 share		
Number of leaseholds	108	46	18	17	16
Number of landlords who furnished the indicated grain storage for the tenant's share of the crop					
Some ear corn storage	26	7	4	1	1
Enough ear corn storage	19	1	3	7	5
Some shelled corn or small grain storage	24	13	4	4	2
Enough shelled corn or small grain storage	16	4	2	6	1
Number of landlords who					
Stored some of his grain on this tract	35	20	4	11	0
Dried some of his grain on this tract	12	15	1	5	0
Number of landlords who furnished drying equipment					
All of it	0	3	0	2	0
Bin and fan	0	2	0	1	0
Bin and dryer	5	3	0	2	0
1/3	0	0	0	0	0
1/2	0	0	1	0	0
Number of landlords who shared in drying costs					
1/3	5	0	0	0	0
2/5	0	8	0	0	0
1/2	0	0	1	3	0
Actual cost or a rate per bushel or per point	3	3	0	0	0

tract. Eight of them furnished all or part of the drying equipment and 11 participated in drying costs. Their share of the drying costs, of course, was two-fifths as compared to the one-third in the former case.

Two trends are likely to continue in southern Illinois. First, drying and storing equipment for grain is most likely to be provided on the owner-operator portion of farmland in the area. And, second, where it does occur on rented land, cost sharing will be in proportion to the landowner's share of the crop.

LIVESTOCK-SHARE LEASES

Although livestock are found in southern Illinois, they tend to be primarily on owner-operated land. Rented land is more likely to be higher-priced, all-tillable cropland, and less likely to be used for livestock production. Thus there are not many livestock-share leases in this area of the state. Table 26 reports a few characteristics of the 17 tracts that were reported as being rented under livestock-share leases. These, of course, were tracts with buildings and, as might be expected, they rented for a half share of the crop and livestock.

The crop cost-sharing pattern under livestock-share leases is reported in Table 27. Some of these leases are on land that would rent for only

Table 26. — Characteristics of Livestock-Share Leases on ½ Rent-Share With Buildings

	All farms
Number of tracts	17
Average size of tract	
Total acres	283
Tillable acres	179
Landlord management	
Percent by landlord	29
Percent by tenant for landlord	71
Percent of leases that were written with lease year beginning	
January 1	29
March 1	18
August 1	0
Other	11
Don't know	24
No response	18
Estimated maximum cash rent per tillable acre	$22.00
Percent who would prefer a cash lease	6

Table 27. — Number of Leaseholds With Indicated Landlord Cost-Sharing Under ½ Livestock-Share Leases With Buildings (Total of 17 Farms Reporting)

Cost items	Landlord's share of each item					
	None	1/3	2/5	1/2	All	Other
Fertilizer materials						
Limestone	0	0	0	4	13	0
Rock phosphate	0	0	0	4	13	0
Potash	0	0	0	12	5	0
Nitrogen (all forms)	0	0	0	16	1	0
Mixed fertilizers	0	0	0	16	1	0
Superphosphate	0	0	0	12	5	0
Fertilizer application						
Bulk spreading	3	0	0	13	1	0
Anhydrous application	3	0	0	12	1	0
Crop seeds						
Corn	0	0	0	15	1	0
Soybeans	1	0	0	13	1	0
Wheat	1	0	0	13	1	0
Alfalfa	1	0	0	8	3	0
Legumes and grasses	0	0	0	13	4	0
Insecticides						
On crops in the field	1	0	0	13	0	0
On livestock	0	0	0	17	0	0
Herbicides (weed killers or weed-control chemicals)						
Broadcast (Atrazine, Simazine, Treflan, Sutan, etc.)	1	0	0	13	0	0
Preemergence banded over the row	1	0	0	11	0	0
Postemergence (2,4-D, etc.)	3	0	0	9	0	0
Johnsongrass rhizome (old plants) control	1	0	0	7	2	0
Johnsongrass seedlings	1	0	0	8	0	0
Harvesting						
Combining soybeans	5	0	0	9	0	0
Combining wheat	5	0	0	9	0	0
Harvesting ear corn	6	0	0	5	0	0
Harvesting shelled corn	5	0	0	8	0	0
Baling hay	2	0	0	13	0	1
Crop drying						
Corn-drying equipment	1	0	0	3	3	0
Fuel and electricity on corn drying	2	0	0	6	0	0
Hauling landlord's grain						
From field to market	7	0	0	7	0	0
From storage to market	8	0	0	6	1	0

one-third of the crop under a crop-share lease, but under the livestock-share arrangement the landlord gets half of the proceeds from crops and livestock. The difficulty in achieving a fair and equitable livestock-share lease on such farms becomes apparent when one considers the extent of cost sharing that is necessary to offset the additional 17 percent of the crop income received by the landlord under the one-half share as compared with the one-third share. The data in Table 27 indicate how some of this offsetting has been accomplished. For example, nearly all of these landowners paid half of the crop seed cost. This is in striking contrast to the crop-share arrangements under which the tenant generally furnished all of the crop seed. The one-half share pattern prevails throughout all fertility and crop protection items and even extends to harvesting costs, where combining, corn harvesting, and hay baling were shared equally by the landlord on at least two-thirds of these farms. Some of these landlords paid for hauling their own grain to market. As a consequence, the livestock-share lease in southern Illinois emerges as much more of a 50-50 partnership than is true, for example, in western and northern Illinois where this type of lease is common.

Kinship between tenant and landlord occurs in a majority of the livestock-share leases, giving further support to the indication that this type of leasing arrangement is a part of the intergeneration transfer process by which the farm business is passed from father to son. Kinship may provide incentives that would be difficult to build into normal contractual arrangements.

CASH LEASES

Another one of the minor lease types in southern Illinois is the all-cash lease. Less than 10 percent of the sample was rented under this type of lease. Some of the characteristics of the tracts and of the leasing agreements under cash leases are reported in Table 28.

The cash rents reported appear nominal, averaging about 12 and 13 dollars per tillable acre, respectively, for tracts without and with buildings. Here again one needs to be mindful of the rather high proportion of kinship between tenants and landowners in this lease type. Estimated maximum cash rents that could be paid indicate some lag between current contractual rents and what might be construed as the economic rent for the tracts in question.

Of interest is the high proportion of these cash-rent tenants who preferred to continue renting on a cash basis. Part of this response may have been motivated by favorable rents but it is more probable that the tenants discovered a freedom of management and operation under this type of lease that they did not enjoy under a share lease.

Table 28. — **Cash Rent Paid and Other Characteristics of All-Cash Leases on Tracts With and Without Buildings**

	Tracts with buildings	Tracts without buildings
Number of tracts	16	31
Average size of tract		
Total acres	180	87
Tillable acres	129	60
Cash rent paid per tillable acre	$ 13.07	$ 11.93
Estimated maximum cash rent per tillable acre	$ 18.00	$ 13.18
Percent preferring a cash rent	93	89
Percent of leases		
That are written	31	48
That have automatic rent-adjustment clauses	0	17
That have raised the rent since 1965	44	39
Whose lease year begins		
January 1	56	55
March 1	19	20
August 1	0	3
Other	6	3
Don't know	13	13
No response	6	13

A surprisingly high proportion of these cash leases are in writing. Part of this may be due to the fact that a higher proportion of these tracts were owned by public and private corporations. Such owners often prefer cash leases. These cash-rented tracts include considerable grazing land, as well as crop land, owned by coal companies. Over half of these arrangements are on a calendar year basis.

Tenants in this survey have expressed a strong preference for share leasing as opposed to cash renting but that judgment seems to be countermanded by those who have experience as cash-rent tenants. This sharp difference suggests that many tenants and landowners in southern Illinois might well consider the possibility of a cash lease for their particular property. However, the higher incidence of crop failure in the area and the greater risk shifted to the tenant under the cash lease mean a greater risk discount in determining cash rent. The result is a gross rental income that may not appear attractive to the landowner. Tenants, on the other hand, may be justifiably reluctant to commit themselves to paying higher cash rents.

MIXED RENT SHARES

The final category of farms under consideration is a small group of 19 leaseholds rented on crop-share leases calling for a combination of rent-shares according to the crops grown. Seven of these 19 leases called for a ⅖ rent-share on corn and a one-third rent-share on soybeans or small grain. Another seven had combinations of ⅖ and ½ rent-shares and the remaining five had combinations of ⅓ and ½ rent-shares.

Mixed rent-shares tend to be perpetuated through local custom and local acceptance. The economic motivation behind the differential rent-shares is impossible to trace through information from the questionnaire. There is some evidence that, considering all factors of production, the input mix is significantly different for soybeans and small grain crops as compared with corn. For corn, a tenant faces a requirement for greater seedbed preparation and higher harvesting costs per acre, with the result that the land factor is a smaller fraction of the total input than is the case with small grains and soybeans. Whether a modification in the rent share for different crops is the best solution to an equitable rental remains an open question. The differentials are not so great that they could not be handled by appropriate sharing of seed, crop-protection, or fertilizer costs. Conflicting motivation on the acreage to be devoted to each crop can best be handled through a basic cropping pattern written into the lease with mutual decisions on modifications from year to year.

SUMMARY AND CONCLUSIONS

The predominant tenure pattern in the 23 counties in southern Illinois included in this study of farm leasing practices is one of owner operation. In spite of this, renting of farmland is important in that approximately 45 percent of all farmland in the area is under lease and approximately 43 percent of the farm operators are involved in renting part or all of the land that they farm. In addition to the economic necessity of some farmers to rent land, notably young men seeking to become established in farming, leasing is an important means of effecting a transfer of the farm business, as well as of farm real estate assets, from one generation of farm operators to another. An inquiry into the prevailing rental practices in the area is a legitimate inquiry into the pricing of and, one of the major costs of farm operation.

The farm rental market in these 23 counties is characterized by a arge number of relatively small tracts, averaging less than a quarter ection in size. The study showed that less than one-third of the leaseholds in the area are on tracts with buildings. The small size of the rental tract generates two important considerations: one, tenants must rent from more than one owner in order to aggregate enough acres to constitute an economically viable operating unit; and second, the small size of the rental tracts generally works against either an active personal participation in the management of the operation by the landowner himself or his employment of professional management. Consequences of this may be both good and bad in that it gives tenants a maximum amount of operating freedom but tends to deprive them of inputs that might be forthcoming as a result of more active landlord participation.

The dominant pattern of leases in the area is primarily one of crop-share rents with less than 10 percent of the tracts renting on a cash basis. Among the crop-share rents, the ⅓ share dominates with approximately 60 percent of the leases on this basis. Twenty percent are on a ⅖ rent-share to the landowner, with the remaining 20 percent divided among ½ shares, mixed rent-shares, and cash leases. A small number of livestock-share operations are found among the ½ rent-shares. The share of the crop paid as rent was found to be related to the productivity of the land as measured both by estimates of its market value and estimates of its ability to yield corn. Kinship and convenience, however, accounted for significant departures from this base.

Landlord participation in operating costs was found to parallel that of the share of the crop given as rent. With the exception of limestone, which was furnished almost exclusively by the landowner, most fertilizers were shared in the same proportion as the crop. That is, if the landowner received one-third of the crop as rent, he paid one-third of the fertilizer costs. The prevailing pattern of cost sharing generally did not include participation by the landlord in the cost of crop seeds or in harvesting costs, either combining or corn harvesting. Crop-protection costs were seen to be bargaining items with about equal numbers of landlords sharing and not sharing in them. Where hay and legume and grass crops were grown, the landlord received one-half the hay crop but paid all of the legume and grass seed costs. There were very few net rent-share leases under which, for example, a landowner might receive one-third of the crop without sharing in operating inputs instead of receiving, say, two-fifths of the crop and making a proportionate contribution to variable costs.

Characteristics of the landlords in the area were found to be comparable to those of nonoperating landowner groups in other parts of the state. Over half of the landlords were found to be 65 years old or older, nearly 40 percent of them were women, and nearly 40 percent of them were related in some way to the tenant. A higher proportion of kinship between tenant and landowner was found on tracts with buildings as compared with unimproved tracts. There was some evidence of preferential rent and cost-sharing arrangements between related parties.

Cash leases were found to be a minor farm leasing arrangement in the area, accounting for less than 10 percent of the leaseholds studied. Two reasons may be cited for the small use of cash leases. One is the high production risk in the area, which tenants are reluctant to assume entirely, and the other is its converse, the low risk discount implicit in a cash rent which landlords are willing to accept. A higher proportion of kinship existed among the cash leases that were found in the area. But there was also an indication that corporations and institutional landlords tended to use cash leases.

A high degree of informality seems to characterize the farm rental market in the area. A relatively small fraction of the rental arrangements studied were formalized with a written lease. A relatively high proportion of the tenants in question were unable to specify a date that marked the beginning of the lease year on their rented properties. Only a small proportion of the landlords were personally involved in the management of their properties. Multiple landlord units were the rule among the tenants in the survey. The average tenant was dealing with 2.7 landlords representing the rented portion of his operation.

The conclusion is that the crop-share leases in the area represent a viable contractual arrangement between landlord and tenant. Where an appropriate share of the crop is paid as rent and the landowner participates proportionately in key variable costs, there is an institutional arrangement remarkably qualified to cope with the changing economic vicissitudes of the area and the impact of new technology in farm operation. The fact that such cost sharing does not yet occur in all leaseholds in the area indicates a continuing need to search for ways to improve existing lease agreements.

The information in this report was gathered and is reported here for the enlightenment and use of both tenants and landowners who seek to achieve a fair and equitable arrangement by which the tenant may secure the rights of possession and use of farmland at a fair price and the landowner may receive a fair and equitable return on his investment. In seeking this objective, both tenants and landlords are advised not to confine their search for information to this particular report but to supplement it with a careful evaluation of the productive capability of the land in question and the economic costs of operation incurred by both tenant and landlord as revealed and reported in summaries of financial records kept by farm operators in the area.

7,500—12-73—26510

UNIVERSITY OF ILLINOIS-URBANA
Q.630.7IL6B C001
BULLETIN. URBANA
741-750 1972-75
3 0112 019528865